

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

JAN WILLEM AARTS ET AL

NL 000403

Serial No.

Group Art Unit

Filed: CONCURRENTLY

Ex.

Title: OPTICAL SCANNING DEVICE AND OPTICAL PLAYER COMPRISING SUCH  
A SCANNING DEVICE

Commissioner for Patents  
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to calculation of the filing fee and examination, please amend the above-identified application as follows:

IN THE CLAIMS

Please amend the claims as follows:

4. (amended) An optical scanning device as claimed in claim 2, characterized in that the first part and the second part of the magnetic system each comprise at least a first and a second permanent magnet which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction, while the first part and the second part of the coil system each comprise at least an electric coil having a first part and a second part, which are provided with wire portions extending

perpendicularly to the X-direction and perpendicularly to the optical axis, said first and said second part of the coil of the first part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the first part of the magnetic system, and said first and said second part of the coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the second part of the magnetic system.

5. (amended) An optical scanning device as claimed in claim 2, characterized in that the first part and the second part of the magnetic system each comprise at least two permanent magnets which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to said X-direction, while the coil system comprises at least one electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first part and said second part of the coil being arranged, viewed in a direction parallel to the X-direction, directly opposite, respectively, one of the two magnets of the first part of the magnetic system and one of the two magnets of the second part of the magnetic system.

6. (amended) An optical scanning device as claimed in claim 2, characterized in that the X-direction extends transversely to an information track present on the information layer, and in that the first part and the second part of the magnetic system each comprise at least two permanent magnets which, viewed parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction, while the coil system comprises an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said parts of the coil being arranged, viewed in a direction parallel to the optical axis, in a transition region of the two magnets of, respectively, the first part and the second part of the magnetic system.

7. (amended) An optical scanning device as claimed in claim 4, characterized in that the X-direction extends at least substantially parallel to an information track present on the information layer, and in that the first part and the second part of the coil system each comprise at least one further electric coil having a first part and a second part, which are provided with wire portions extending parallel to the optical axis, the first part and the second part of the further coil of the first part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the first part of the magnetic system, which

magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet, and the first part and the second part of the further coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the second part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet.

8. (amended) An optical player comprising an optical scanning device for scanning an information layer of an optically scannable information carrier, and a table which can be rotated about an axis of rotation, on which table the information carrier can be placed, said scanning device being provided with a radiation source, an optical lens system with an optical axis for focusing a radiation beam supplied, in operation, by the radiation source into a scanning spot on the information layer, and an actuator by means of which the lens system can be displaced with respect to a stationary part of the scanning device, at least in a direction parallel to the optical axis, and a displacement device by means of which at least the lens system of the scanning device can be displaced, with respect to the axis of rotation, mainly in a radial direction, characterized in that the optical scanning device is an optical scanning device as claimed in claim 1.

REMARKS

The foregoing Preliminary Amendment to the claims were made solely to avoid filing the claims in the multiple dependant form so as to avoid the additional filing fee.

The claims were not amended in order to address issues of patentability and Applicants respectfully reserve all rights they may have under the Doctrine of Equivalents. Applicants furthermore reserve their right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

Respectfully submitted,

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APPENDIX

Amended Claims

4. (amended) An optical scanning device as claimed in claim 2—or 3, characterized in that the first part and the second part of the magnetic system each comprise at least a first and a second permanent magnet which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction, while the first part and the second part of the coil system each comprise at least an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first and said second part of the coil of the first part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the first part of the magnetic system, and said first and said second part of the coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first and the second magnet of the second part of the magnetic system.

5. (amended) An optical scanning device as claimed in claim 2—or 3, characterized in that the first part and the second part of the

magnetic system each comprise at least two permanent magnets which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to said X-direction, while the coil system comprises at least one electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said first part and said second part of the coil being arranged, viewed in a direction parallel to the X-direction, directly opposite, respectively, one of the two magnets of the first part of the magnetic system and one of the two magnets of the second part of the magnetic system.

6. (amended) An optical scanning device as claimed in claim 2—or 3, characterized in that the X-direction extends transversely to an information track present on the information layer, and in that the first part and the second part of the magnetic system each comprise at least two permanent magnets which, viewed parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction, while the coil system comprises an electric coil having a first part and a second part, which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said parts of the coil being arranged, viewed in a direction parallel to the optical axis, in a

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transition region of the two magnets of, respectively, the first part and the second part of the magnetic system.

7. (amended) An optical scanning device as claimed in claim 4—or 5, characterized in that the X-direction extends at least substantially parallel to an information track present on the information layer, and in that the first part and the second part of the coil system each comprise at least one further electric coil having a first part and a second part, which are provided with wire portions extending parallel to the optical axis, the first part and the second part of the further coil of the first part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the first part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet, and the first part and the second part of the further coil of the second part of the coil system, viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet and a magnetizable part of the second part of the magnetic system, which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet.

8. (amended) An optical player comprising an optical scanning device for scanning an information layer of an optically scannable information carrier, and a table which can be rotated about an axis

of rotation, on which table the information carrier can be placed, said scanning device being provided with a radiation source, an optical lens system with an optical axis for focusing a radiation beam supplied, in operation, by the radiation source into a scanning spot on the information layer, and an actuator by means of which the lens system can be displaced with respect to a stationary part of the scanning device, at least in a direction parallel to the optical axis, and a displacement device by means of which at least the lens system of the scanning device can be displaced, with respect to the axis of rotation, mainly in a radial direction, characterized in that the optical scanning device is an optical scanning device as claimed in claim 1, ~~2, 3, 4, 5, 6 or 7.~~